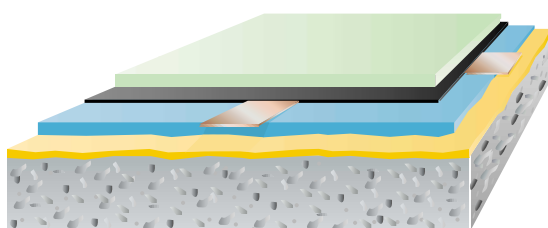


# RINOL *DESIGN* *conductive*

Highly functional visually appealing  
and electrically safe



- Conductive top coat
- Conductive layer with copper tape
- Levelling layer
- Primer
- Substrate

## System description

A four layer decorative and electrically conductive epoxy resin floor coating system with a polished granite effect finish. Applied thickness ca. 4 mm.

### Maximum service temperature

60°C

### Colour range

Available in a range of granite effect colours. See our brochure for details.

### Benefits

- outstanding aesthetics
- hygienic and non-absorbent
- tough and hard wearing
- electrically conducting
- smooth easy to clean surface
- seamless
- low odour during application

### Areas of use

- clinics
- operating theatres
- explosion proof areas

## Physical properties

**Compressive strength** 68 N/mm<sup>2</sup>

DIN EN 196/ASTM C 109

**Flexural strength** 35 N/mm<sup>2</sup>

DIN EN 196/ASTM C 190

**Adhesive strength** > 3.5 N/mm<sup>2</sup>

DIN ISO 4624

### Abrasion resistance

(Taber CS10 wheel) 51 mg / 1000 cycles

DIN 53754/ASTM D 1044

**Shore D hardness** 82

DIN 53505/ASTM D 2240

**Resistance to earth** < 1 x 10<sup>6</sup> Ω

DIN EN 1081/DIN 51953

**Colour stability (Scale 1-8, best=8)** 7

DIN EN ISO 877

# RINOL*DESIGN* *conductive*

## System description

A four layer decorative and electrically conductive epoxy resin floor coating system for concrete and similar substrates, with a polished granite effect finish. The primer is normally **RINOL EP-P202**. The levelling layer is **RINOL EP-L300**. The conductive layer is **RINOL EP-E480**. The decorative electrically conducting topcoat is **RINOL EP-C560**. The applied thickness is approximately 4 mm.

## Method statement

### 1. Substrates

- 1.1 Suitable substrates are concrete, polymer modified concrete or screeds, anhydrite or magnesite.
- 1.2 The substrate should have a tensile (pull-off) strength of at least 1.5 N/mm<sup>2</sup> when measured when measured according to a recognised national standard.
- 1.3 Substrates should be visibly dry. For concrete and polymer modified concrete, primer **RINOL EP-P202** can tolerate moisture contents of up to 4% by weight. Higher moisture contents up to a maximum of 6% by weight can be tolerated if primer **RINOL EP-P210** is used. For anhydrite substrates moisture contents up to 0.8% by weight are permissible. Moisture contents must always be measured according to a recognised standard.
- 1.4 The substrate must be clean and free from dust and loose particles. All traces of contaminants such as oils, fats, greases, paint residues, chemicals, algae and laitance, should be removed.

### 2. Preparation

- 2.1 The preferred method of surface preparation is vacuum shot blasting. Other methods such as scabbling, grit blasting or grinding can be used but are generally less satisfactory.

### 3. Priming

- 3.1 The primer is mixed using an electric mixer taking care to avoid the inclusion of air. When homogeneous the mix is poured onto the prepared surface and spread using a Kaub spatula or rubber spreader. Material consumption will be 250 – 500 g/m<sup>2</sup> depending upon substrate roughness.
- 3.2 Onto the wet primer dry silica sand (**RINOL QS-20**) is scattered at a rate of 800 – 1200 g/m<sup>2</sup> to ensure good intercoat adhesion.
- 3.3 RINOL primers must not be applied if the temperature falls or is expected to fall to within 3 °C of the dew point.

### 4. Application of the levelling coat

- 4.1 The levelling coat **RINOL EP-L300** should be applied once the primer has hardened but not completely cured. This will normally be after 12 – 15 hours.
- 4.2 Before application of the levelling coat excess silica sand should be removed and the primer layer should be ground and vacuum cleaned.
- 4.3 The two components of **RINOL EP-L300** should be mixed using an electric mixer taking care to avoid the inclusion of air. When the mix is homogeneous a mixture of dry silica sands (1 part **RINOL QS-10**, 3 parts **RINOL QS-20**) should be added at a rate of 30 parts sand to 100 parts resin and mixed again until homogeneous. This mix is then poured onto the primed surface and spread using a spatula, flattening knife or trowel at a rate of 1000 – 1400 g/m<sup>2</sup>.
- 4.4 **RINOL EP-L300** must not be applied if the temperature falls or is expected to fall to within 3 °C of the dew point.

### 5. Application of the conductive layer

- 5.1 The conductive layer **RINOL EP-E480** should be applied once the levelling layer has hardened but not completely cured. This will normally be after 12 – 15 hours.
- 5.2 Copper tapes as required are fixed to the surface of the levelling layer and covered with gauze strips.
- 5.3 The two components of **RINOL EP-E480** should be mixed using an electric mixer taking care to avoid the inclusion of air. This mix is then poured onto the levelling coat surface and spread using a rubber spatula at a rate of 70 – 90 g/m<sup>2</sup>. It should then be rolled using a short pile roller.
- 5.4 **RINOL EP-E480** must not be applied if the temperature falls or is expected to fall to within 3 °C of the dew point.

### 6. Application of the decorative top coat

- 6.1 The top coat **RINOL EP-C560** should be applied once the conductive layer has hardened but not completely cured. This will normally be after 8 – 12 hours.
- 6.2 The top conductive coat **RINOL EP-C560** is mixed using an electric mixer taking care to avoid the inclusion of air. When homogeneous the mix is poured onto the conductive layer and spread using a serrated spatula. Material consumption should be 2500 – 2800 g/m<sup>2</sup>. To ensure a uniform thickness the teeth of the serrated spatula must be replaced regularly.
- 6.3 **RINOL EP-C560** must not be applied if the temperature falls or is expected to fall to within 3 °C of the dew point.
- 6.4 At 20 °C **RINOL DESIGN conductive** can be walked on after 12 – 15 hours, will reach full mechanical resistance after 7 days and full chemical resistance after 28 days.

## Specification clauses for RINOL*DESIGN* *conductive*

- 1) The primer shall be **RINOL EP-P202** or equivalent applied at a rate 250 – 500 g/m<sup>2</sup> in such a manner as to ensure complete sealing of the substrate surface.
- 2) Dry silica sand (**RINOL QS-20**) shall be broadcast into the wet primer at a rate of 800 – 1200 g/m<sup>2</sup>.
- 3) The levelling coat shall be **RINOL EP-L300** filled with dry silica sand at a rate of 30 parts sand to 100 parts resin. The silica sand shall be 1 part **RINOL QS-10**, 3 parts **RINOL QS-20**.
- 4) Copper strips as required shall be fixed to the levelling layer and covered with gauze.
- 5) The conductive layer shall be **RINOL EP-E480** applied at a rate of 70 – 90 g/m<sup>2</sup>.
- 6) The conductive top coat shall be **RINOL EP-C560** applied at a rate of 2500 – 2800 g/m<sup>2</sup>.

## IMPORTANT

Whilst all reasonable care is taken in compiling technical data on the company's products, all recommendations or suggestions regarding the use of such products are made without guarantee since the conditions of use are beyond the control of the company. It is the customer's responsibility to satisfy himself that each product is fit for the purpose for which he intends to use it and that the actual conditions of use are suitable.